Other: NOAA P-3 05/17/16

Aircraft: Other: NOAA P-3 - 16M030
Flight Number: Land Ice Helheim-Kangerdlugssuaq Gap B
Payload Configuration: OIB Spring 2016
Nav Data Collected: No
Total Flight Time: 8.1 hours
Submitted by: John Woods on 05/17/16
Flight Segments:

From:	BGSF	**To:**	BGSF
Start:	05/17/16 10:44 Z	**Finish:**	05/17/16 18:47 Z
Flight Time:	8.1 hours		
Log Number:	16M030	**PI:**	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		

Flight Hour Summary:

	16M030
Flight Hours Approved in SOFRS	200
Total Used	148.7
Total Remaining	51.3

16M030 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
03/22/16	ICF1	Check	2	2	198	
03/23/16	ICF2	Check	3.4	5.4	194.6	
04/12/16	ICF3	Check	1.3	6.7	193.3	
04/15/16	Repo 1	Ferry	0.5	7.2	192.8	
04/16/16	Repo 2	Ferry	2.9	10.1	189.9	
04/18/16	Repo 3	Ferry	7.1	17.2	182.8	
04/19/16	Sea Ice Eureka	Science	7.3	24.5	175.5	
04/20/16	Sea Ice Laxon Line	Science	8.7	33.2	166.8	
04/21/16 - 04/22/16	Sea Ice SIZRS Zigzag	Science	8.3	41.5	158.5	
04/30/16	Sea Ice South Basin Transect	Science	8.8	50.3	149.7	
05/03/16	Sea Ice North Pole Transect	Science	7.6	57.9	142.1	
05/04/16	Sea Ice South Canada Basin	Science	7.9	65.8	134.2	
05/09/16	Land Ice Zachariae-79N	Science	7.6	73.4	126.6	
05/10/16	Land Ice Northwest Coastal A	Science	6	79.4	120.6	
05/11/16	Land Ice Umanaq B	Science	7.1	86.5	113.5	
05/12/16	Land Ice Southeast Coastal	Science	7.3	93.8	106.2	
05/13/16	Land Ice Helheim-Kangerdlugssuaq	Science	7.8	101.6	98.4	
05/14/16	Land Ice SW Coastal A	Science	7.8	109.4	90.6	
05/16/16	Land Ice Thomas-Jakobshavn 01	Science	7.9	117.3	82.7	
05/17/16	Land Ice Helheim-Kangerdlugssuaq Gap B	Science	8.1	125.4	74.6	
05/18/16	Land Ice IceSat-2 Central	Science	7.7	133.1	66.9	

05/19/16	Land Ice East Glaciers 01	Science	7.1	140.2	59.8
05/21/16	Ferry BGSF_KMCF	Ferry	8.5	148.7	51.3

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

OIB - Other: NOAA P-3 05/17/16 Science Report

Mission: OIB
Mission Summary:

Mission: Helheim-Kangerdlugssuaq Gap B (priority: high)

This mission is designed (along with Helheim-Kangerdlugssuaq Gap A) to refly a 2012 grid over the area of complex terrain between the Helhim and Kangerdlugssuaq Glaciers. Each of these missions alone forms a coast-parallel grid spaced at 20 km, and the two flights together interlace to form a 10-km grid. This particular mission also reoccupies the centerlines of two glaciers in the area (names unknown). This flight retains a high priority for 2016 because it continues an intra-annual time series with the spring and fall 2015 campaigns along these lines.

We had hoped to see clear skies along the west-central portion of the Greenland Ice Sheet today, so that we could have addressed one of our three remaining baseline missions in that area. Unfortunately much of the soutwestern flank of the ice sheet was covered in an extensive stratus deck this morning and we were unable to dedicate a science flight there as a result. Instead, we selected this area because (a) skies were clear there except for a few cirrus clouds, (b) this was a high-priority mission, and (c) this mission is suitable for reflight with the Falcon campaign late this summer. We had to accept the loss of optical data along the clouded, western portions of the east-west transit lines.

All instruments performed normally today, and neither ATM nor DMS experienced unusual fouling of their respective windows from hydraulic fluid. The rugged topography along the grid lines made terrain-following flight difficult at times, which meant that all instruments had to deal with a large amount of variability in their range to the surface, particularly on the easternmost lines.

Overall, we estimate successful data collection across 95% of the flight.

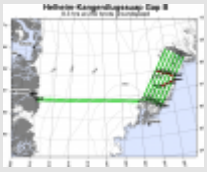
We conducted a ramp pass over Kangerlussuaq at 2000' AGL.

Data volumes:
ATM: 31 Gb
FLIR: 3.9 Gb
DMS: 115 Gb
Ku-Band Radar: 150 Gb
MCoRDS: 2.0 Tb
Snow Radar: 150 Gb
BESST: xx Gb

total data collection time: 7.6 hrs

Images:

Map of Helheim-Kangerdlugssuaq Gap B



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Submitted by: John Sonntag on 05/17/16

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